



**Chad 1997/98
Current Vulnerability Assessment
February 1998**

**Famine Early Warning System Project
U.S. Agency for International Development**

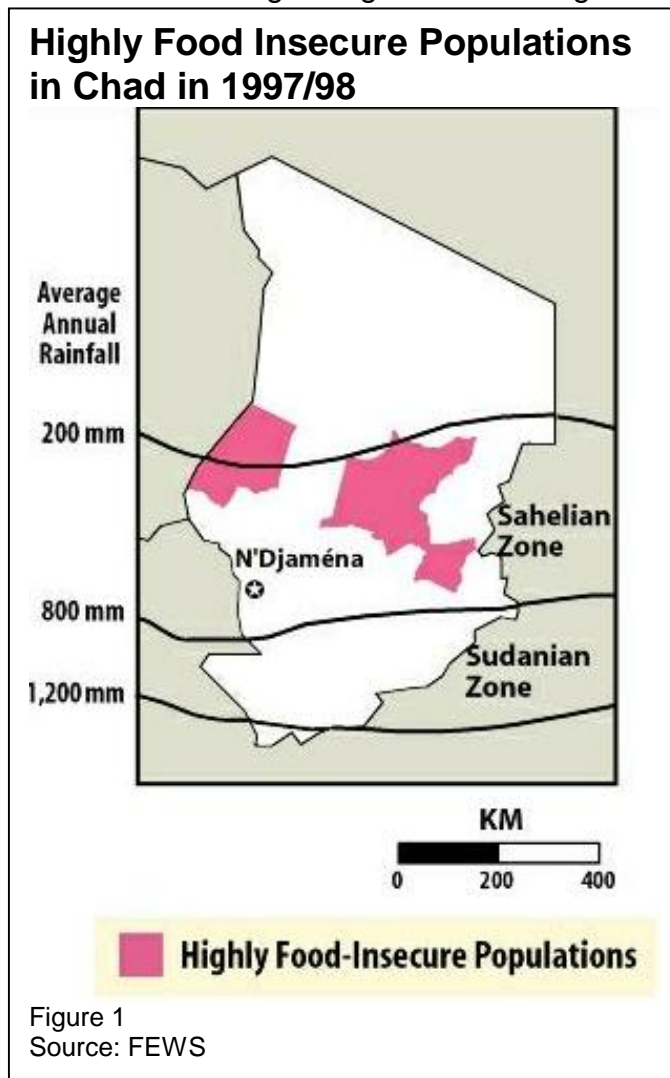
Chad 1997/98 Current Vulnerability Assessment

Slightly better than average agricultural production has improved food security conditions that have been slowly deteriorating since the bumper crop of 1994/95

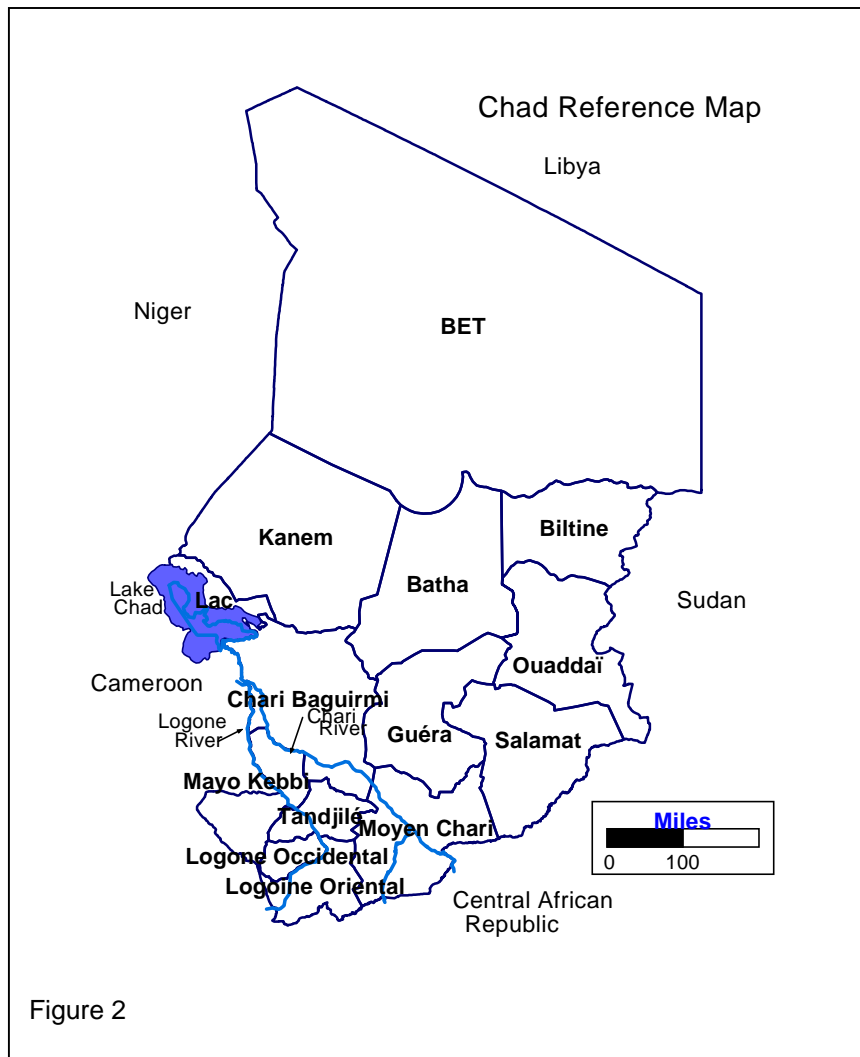
SUMMARY

The 1997 rainy season was characterized by poor spatial and temporal distribution of rains at the beginning of the season, good rains through July and August, and a long dry spell in September that led to a premature end of the growing season throughout the northern Sahel. Preliminary production assessments estimated 1997/98 gross national cereal production at 993,320 MT. This is 13 percent higher than in 1996/97 and approximately 9 percent higher than the 1992/93-1996/97 average, but about 15 percent below the bumper crop of 1994/95. Given estimated cereal consumption needs for the 1997/98 consumption year of 1,132,604 MT, net stocks of 7,809 MT, and projected imports of 73,000 MT, this leaves a national cereal deficit of 240,432 MT. This is an improvement over 1996/97 when the deficit was 288,372 MT.

In the Sudanian zone, in addition to increases in food crop production, cotton production has increased by 40 percent, which will result in a significant improvement in farmers' incomes. However, in the Sahelian zone the shortened growing season reduced millet production in many rainfed agricultural areas in parts of Batha, Ouaddaï, Biltine, and Kanem Prefectures. In these areas, below-average production this year, and in many cases for the past couple of years, has left approximately 522,000 people moderately food insecure and another 94,000 highly food insecure (see terminology box below) (figure 1). If food flows normally through regular commercial channels from surplus to deficit areas, the moderately food-insecure populations should be able to meet their food needs through market purchases. The national early warning system



(SAP) recommendation that 5,160 MT of cereals from the national security stock be sold at subsidized prices in these areas should make market purchases more affordable for the moderately food insecure. However, the highly food-insecure group will need additional assistance to meet food requirements during the next hungry period (May to July 1998).



I. INTRODUCTION

This Current Vulnerability Assessment (CVA) presents an analysis of the impact of recent events on populations' current food security status. Food security is a measure of whether an individual, household, community, or any population group has access to sufficient safe and nutritious foods that meet dietary needs and food preferences for an active life. There are two important aspects of food security: food availability and food access.

1. Food availability is defined as the amount of food which is, and will be, physically present in the country during the current consumption year.¹
2. Food access refers to a household's ability to acquire that "available" food, either through its own (on-farm) production and stocks, market transactions (cash or in-kind) or transfers (private or government) for the current consumption year.

This CVA categorizes populations as food secure or food insecure. **Food-secure** populations can meet their food needs in the current year without altering normal income activities or depleting savings. For the purpose of response planning, food insecure populations are distinguished according to their degree of food insecurity:

- **Extremely food-insecure** populations have depleted their asset base to such a degree that without immediate outside assistance, they will face famine. Appropriate interventions include emergency food distributions and long-term rehabilitation programs.
- **Highly food-insecure** populations cannot meet their food needs during the current year without reducing consumption or drawing down assets to such a degree that they compromise their future food security. Appropriate interventions include nutritional support for vulnerable groups, food for work, income and asset support, and market interventions.
- **Moderately food-insecure** populations can meet their food needs in the current year, but only by drawing down savings or relying heavily on secondary income activities. Should market access or income from secondary activities be compromised, these populations might become highly food insecure in the current year. No interventions are necessary, but positioning of cereals would facilitate market interventions if conditions deteriorate.

This report is organized to first address food availability and then food access. Section II presents an analysis of food availability at the national and subnational levels. At the national level, the focus is on evaluating current levels of production, stocks, and net imports, comparing them to average levels and calculating the national food balance. This is the first step in understanding whether there will be enough food available to

¹ For most agricultural populations, the current consumption period refers to the period between the current harvest and the next harvest, which is usually, but not necessarily, a full year.

meet the consumption needs of the entire population in the current year. This is followed by an evaluation of changes in production at the subnational level and the possible implications these changes will have on food flows and local availability.

Section III presents an analysis of food access at the socioeconomic group level, going beyond the issue of food availability to a determination of how the current harvest and other factors have affected the various socioeconomic groups' ability to acquire sufficient food to meet their current food needs.

FEWS considers the following factors in making this determination:

- Harvest outcomes over the past 3 seasons
- Degree of dependence of each group on agricultural production for meeting food needs
- Levels and diversity of other income sources
- Market availability and prices of cereals²
- Coping strategies

Section IV summarizes the actions that are being taken or need to be taken to respond to any food emergencies.

II. FOOD AVAILABILITY

A. National Availability

1. Production

Across Chad the beginning of the 1997 rainy season³ was characterized by a poor distribution of rains in both time and space. In some areas of Batha Prefecture, farmers had to replant several times and continued planting until August. In most areas, however, growing conditions started to improve at the end of June, and well distributed rains fell throughout July over all agricultural areas. Rainfall was below average in August, which is normally the rainiest month of the season, but the distribution was still adequate to allow for good growth and development of crops. At the end of August, crops were looking so good in the Sudanian zone and over most of the Sahelian zone that hopes were high for a bumper crop similar to 1994/95. This did not materialize, however, because the Sahelian zone experienced a long dry spell in September that prematurely ended the growing season and fostered ideal conditions for pests to invade crop land. Millet was the most affected as most of the crop was flowering when the dry spell occurred. Production losses were especially significant in the northern parts of Kanem, Batha, Ouaddai, Biltine, and Guera Prefectures, with complete crop failure in

² This takes into account the degree of integration of specific areas into the national market. Geographic isolation and status of transport infrastructure are key factors considered.

³ The rainy season typically runs from May to September; harvest usually occurs from August to December. For the purposes of this analysis, the 1997/98 agricultural season is referred to as this season, or this year. The 1996/97 agricultural season is referred to as last season or last year.

certain areas. The Sudanian zone was not affected by the September drought, and rainfed crops produced well, as did recessional and irrigated crops.

Preliminary Ministry of Agriculture production estimates put gross 1997/98 cereal production at 993,320 MT, 10 percent higher than average⁴ and 13 percent higher than last year (table 1). Estimated production of rice, which comes predominantly from Tanjilé, Mayo Kebbé, and Logone Occidental Prefectures, registered a 47 percent increase over last year's level and an impressive 80 percent increase compared to average (figure 2). This is the first year ever that rice production will cover estimated rice consumption needs in Chad. The large

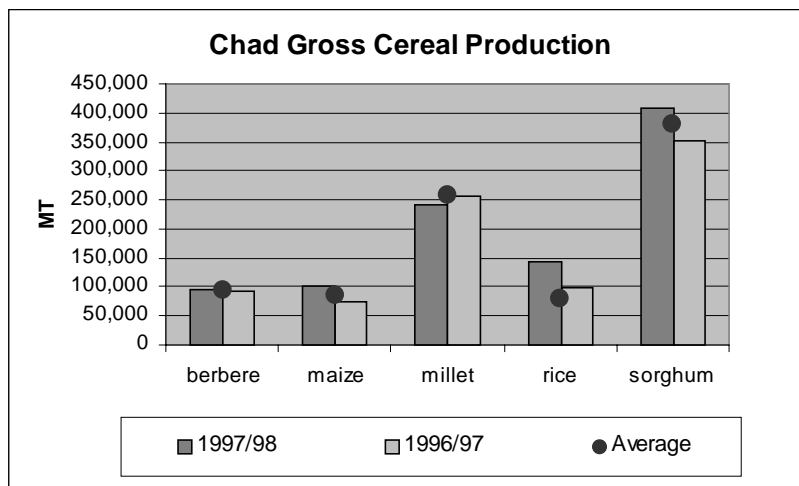


Figure 2
Source: Ministry of Agriculture

gains in rice production resulted from a combination of favorable growing conditions and increased area planted to rice in response to higher post-devaluation rice prices. Maize production increased 36 percent compared to last year and 18 percent compared to average, due almost exclusively to increased production in the polders of Lake Chad in Lac Prefecture. In all other prefectures except Ouaddai and Logone Oriental, maize production fell significantly compared to average. Production of millet, which is the main crop across much of the Sahelian zone, was 7 percent below both 1996/97 and average production. Sorghum production is up 16 percent over last year. While preliminary estimates of *berbéré* (recessional sorghum) production show slightly below-average levels, adequate flooding around Lake Fitri (Batha Prefecture) and in the Salamat flood plains provided increased area for planting and excellent moisture conditions for *berbéré*; thus production may be adjusted upward with the final estimates.

⁴ Averages for all production comparisons refer to the average for 1992/93 through 1996/97, unless otherwise noted.

Table 1: Comparison of 1997/98 provisional gross production estimates with final estimates for 1996/97 and average

SEASON	CEREAL							
	Berbere	Fonio	Maize	Millet	Rice	Sorghum	Wheat	Total
1997/98 (MT)	94,587	1,242	101,381	240,019	143,827	408,664	3,600	993,320
1996/97 (MT)	91,629	952	74,631	257,631	97,728	352,517	2,650	877,738
Average (MT)	95,999	382	85,655	259,170	80,111	380,064	2,526	903,907
Difference in % 1997/98 vs 1996/97	+3	+30	+36	-7	+47	+16	+36	+13
Difference in % 1997/98 vs Average	-1	+225	+18	-7	+80	+8	+43	+10

Source: Agricultural Statistics Division-DIAPER, Ministry of Agriculture

2. Stocks

Estimated stocks include farmer stocks (7,169 MT), commercial stocks (5,927 MT), and WFP stocks (3,803 MT) for its school feeding programs, for a total of 16,899 MT as of the end of October, 1997. National food security stocks were completely depleted by subsidized sales and emergency distributions in 1997. The National Cereals Office (ONC) plans to purchase 10,000 MT of cereal in the first quarter of 1998 to replenish security stocks. Low cereal prices compared to last year should facilitate local purchases to replenish these stocks.

3. Imports/Exports

Most cereal trade is limited to rice and wheat imports, which are captured in official trade statistics. The Agricultural Statistics Division has projected commercial cereal imports at 10,000 MT of rice and 53,000 MT of wheat grain. This is less than 1996/97 imports because this year's estimated rice and wheat production have increased. Food aid imports include 5,000 MT of wheat flour donated by France (7,000 MT in grain equivalent), 3,567 MT of wheat flour (equivalent to about 5,000 MT of wheat grain) by AFRICARE, and 4,037 MT of Soy Fortified Corn Meal (SFCM) by WFP. France's donation of wheat flour had arrived by the end of 1997 and will be sold, with the proceeds to be used to buy local cereals to reconstitute the national security stocks. AFRICARE will also sell its wheat flour locally and the proceeds will be used to run their various programs. WFP is planning to use the SFCM for its school feeding programs.

Cross border flow of traditional cereal (sorghum, maize, millet) is very limited for a variety of reasons:

- 1) A difference in dietary habits with the Central African Republic and much of Cameroon, where people eat more tubers and root crops (yams, cassava, etc.)
- 2) Any potential flows from Nigeria must flow through Cameroon, therefore crossing two borders.
- 3) The production areas on either side of the Niger-Chad border are structurally deficit, providing little incentive for cereals to flow. In addition, the transport infrastructure linking Niger and Chad is very poor, reducing further any possibility of significant cereal trade.

- 4) While Sudan shares a long border with Chad and its population has similar dietary habits to those in Chad, its weak currency and high inflation hamper trade between the two countries.

4. National Food Balance

A recent study⁵ updated the average consumption standard from the formerly used standard of 140 kg/year per capita to 159 kg/year per capita. Cereal availability from current production, opening stocks and anticipated imports amounts to 891,896 MT. Consumption needs are estimated at 1,132,604 MT, resulting in a net deficit of 240,708 MT (table 2). When the current consumption rate is applied to the previous season food balance sheet, the current year net deficit is 16.5 percent lower than last year's net deficit of 288,372 MT. While the absolute magnitude of the deficit is quite large, in relative terms, the deficit is smaller than in 1997/98, and cereal availability has increased by approximately 7 kg per capita compared to 1996/97.

Table 2: Preliminary Cereal Balance for 1997/98⁶

	Rice	Wheat	Traditional Cereals ⁷	Total
Population to April 30, 1998				7,066,135
1. Availability	79,488	4,600	734,023	818,071
Gross Production	143,827	3,600	845,892	993,319
Net Production ⁸	79,104	3,060	719,008	801,172
Initial stocks	344	1,540	15,015	16,899
a) Farmer stocks			7,169	7,169
b) Other		1,540	7,846	9,730
2. Needs	70,378	69,954	992,272	1,132,604
Consumption ⁹	70,378	69,954	983,182	1,123,514
Final Stocks	0	0	9,090	9,090
a) National FSS	0	0	7,340	7,340
b) Other	0	0	1,750	1,750
3. Gross surplus (+) or deficit (-)	+9,070	-65,354	-258,249	-314,533
4. Import/Export	10,000	63,825	0	73,000
Commercial Imports	10,000	53,000	0	63,000
Aid pledged	0	10,825		10,825
5. Net surplus (+) or deficit (-)	+19,070	-1,529	-258,249	-240,708
6. Per capita cereal availability ¹⁰ (kg)	12.66	9.68	103.88	126.22

Source: Agricultural Statistics Division-DIAPER, Ministry of Agriculture; National Census Bureau

⁵ Charmes, J, 1997: Etude sur la Consommation et le Secteur Informel au Tchad (ECOSIT) pp. 38. DSEED (Direction de la Statistique des Etudes Economiques et Demographiques), Ministère des Finances, de l'Economie, du Plan et de l'Amenagement du Territoire, N'Djaména.

⁶ Note: All units are MT unless otherwise noted.

⁷ Includes millet, sorghum, maize, and fonio.

⁸ Net production is obtained by multiplying gross production by 0.55 for rice and 0.85 for all other cereals.

⁹ Cereal-specific consumption standards (kg/person) are 9.96 for rice; 9.90 for wheat; 139.14 for traditional cereals; 190 for all cereals.

¹⁰ Per capita availability includes net production, initial stocks, and net imports.

B. Subnational Cereal Production and Flows

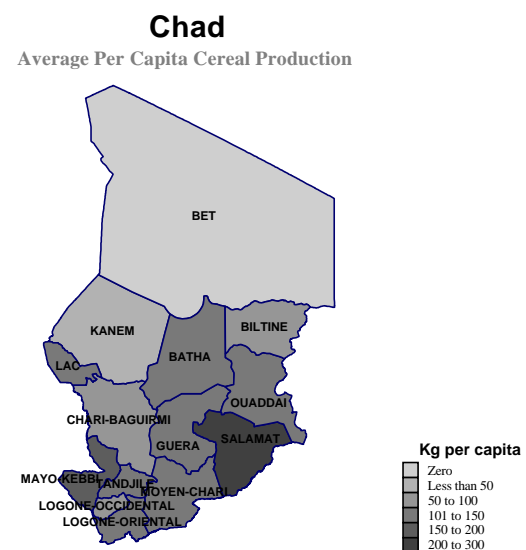
Cereal flow in Chad depends on the amount of cereal produced locally in each of the prefectures and the importance of cereals in the local diet. At the prefecture level, average per capita cereal production ranges from 0 kg per capita in the Saharan Prefecture of Borkou-Ennedi-Tibesti (BET) to almost 300 kg per capita in Salamat Prefecture (figure 3). Between these two extremes are 7 prefectures which produce between 100 and 150 kg per capita, 1 which produces just over 150 kg per capita, and 4 which produce under 100 kg per capita.

The importance of cereals in the diet varies closely with agroclimatic zone. In the Sahelian zone, cereals predominate, in terms of both production and consumption. In the Sudanian zone, populations grow and consume a combination of cereals, pulses, roots, and tubers and obtain a smaller share of their caloric intake from cereals.

Cereal flow tends to be from south to north. As in all Sahelian countries, the capital city, N'Djamena, is a magnet for cereals and a major redistribution center. Cereals move from all the prefectures to the south and east of N'Djamena (located in Chari-Baguirmi Prefecture) and from Lac Prefecture to the north. From N'Djamena, cereals flow north to Kanem, Batha, and Biltine. Salamat serves as an important source of supply for the Prefectures to its north: Guera, Ouaddai, and Biltine. BET obtains most of its cereal supply, in the form of wheat flour, from Libya.

Each year, the magnitude of cereal flow depends on the local supply situations and the level of effective demand (i.e., purchasing power). If important supply areas have a poor year, the surplus

Figure 3



Per Capita Cereal Production in 1997/98



available for redistribution is reduced. If local production is exceptionally poor in deficit areas, potential demand increases, but the effect on cereal flow will depend on the level of effective demand. If there is low effective demand, the market will not function to meet that potential demand.

This year, most of the important cereal supply areas in southern Chad experienced decreases of 2 to 20 percent in per capita cereal production compared to average (table 3). This will have a negative impact on cereal flow to deficit areas. Lac Prefecture, on the other hand, produced double its average per capita production. This will increase flows to Kanem Prefecture, which experienced a 36 percent decrease in per capita production compared to average. Availability of cereals from local production in Biltine Prefecture increased 72 percent compared to average, which will reduce demand for outside sources of supply in this structurally-deficit Prefecture. The combination of below average production in Batha, Guera, and Chari-Baguirmi Prefectures and in the prefectures that normally supply them will exacerbate the local shortfalls in these three Prefectures.

Table 3: Subnational Per Capita Cereal Production

Zone	Prefecture	1997/98 Prod (kg)	Avg Prod (kg)	Difference 1998 vs Avg (%)
Sahara				
	BET	0	0	0
Sahel				
	Batha	100	112	-11
	Biltine	89	52	72
	Kanem	27	42	-36
	Lac	218	108	101
	Ouaddai	119	115	3
Mixed Sahel/Sudanian				
	Chari Baguirmi	74	93	-20
	Guéra	95	104	-9
Sudanian				
	Logone Occidental	86	74	17
	Logone Oriental	120	126	-5
	Mayo Kebbi	156	159	-2
	Moyen Chari	120	113	6
	Salamat	245	282	-13
	Tandjile	127	144	-12
Chad		121	117	3

Source: Ministry of Agriculture; National Census Bureau

III. FOOD ACCESS

FEWS analysis of current food security in Chad has identified 94,000 dryland farmers who are highly food insecure and 522,000 who are moderately food insecure (table 4).

Table 4: Food Insecure Populations in Chad in 1998¹¹

Prefecture/ Subprefecture	Dryland Farmers	
	Highly	Moderately
Batha		
Djedaa	11,000	11,000
Oum-Hadjer	29,000	63,000
Biltine		
Arada	1,000	
Kanem		
Mao		148,000
Moussoro		60,000
Nokou	34,000	27,000
Ouaddaï		
Abéché Rural		137,000
Am-Dam	19,000	54,000
Guéra		
Mangalmé		22,000
Total	94,000	522,000

Source: FEWS/Chad

The factors that led to this outcome are described below for each group.

A. Rural populations

The main subgroups within this category are farmers and pastoralists.

1. Farmers

This group represents about 73 percent of the total population and constitutes the bulk of the rural population. All farmers practice dryland agriculture, and most integrate small-scale livestock raising. There are important subgroups of farmers who, in addition to practicing dryland agriculture and raising livestock, supplement their incomes through

¹¹ The numbers of food insecure people were calculated as follows:

a) For Abéché, Mangalmé, Mao, and Moussoro, the entire sedentary population of each subprefecture was found to share the same level of food insecurity.

b) For Am-Dam, Arada, Djedaa, Nokou, and Oum Hadjer, cantons within each of these subprefectures were found to have different levels of food insecurity. In these cases, the entire population of the canton was assigned the same level of food insecurity.

The population figures are calculated from the 1993 census data, using the national growth rate of 2.36 percent to find projected population to April 1998.

recessional agriculture (sorghum, rice, maize, and wheat), large-scale market gardening, or seasonal fishing.

a. Dryland farmers

In the Sudanian zone dryland farmers grow diversified food crops, including cereals, cassava, sweet potato, and yams. Some grow cash crops such as peanuts and cotton. Production of peanuts for 1997/98 season was approximately equal to average. . An increase in the price of cotton (the main cash crop in the Sudanian zone) from 140 CFAF/kg in 1995/96 to 170 CFAF/kg in 1996/97 has encouraged farmers to increase area planted. This year's production increased 40 percent, from 213,000 MT in 1996/97 to 300,000 MT of cotton grain in 1997/98. Such a significant increase in cotton production should increase farmers' incomes and therefore compensate for slightly below-average cereal production, leaving southern dryland farmers food secure.

In the Sahelian zone, dryland farmers have much less diversified cropping systems. They mainly grow millet and sorghum. During the nine months of dry season, much of the work force leaves the villages to seek employment in towns or other rural areas where there are better employment opportunities in market gardening, off-season agriculture, and seasonal fishing. Those who remain in the villages normally engage in labor intensive and less lucrative activities such as cutting hay or firewood, producing charcoal, and collecting wild food. In southern Oum-Hadjer Subprefecture (Batha Prefecture) and in Mangalmé Subprefecture (Guéra Prefecture), people make and sell palm mats. In Abéché Rural Subprefecture in Ouaddaï, an important subgroup of dryland farmers rely heavily on income from onions and garlic produced during the dry season to purchase cereals. The onions and garlic produced in the wadis of Ouaddaï meet a large share of national demand and are also exported to CAR, Congo, and Gabon.

This year, late in the growing season, drought affected the north of Kanem (Nokou Subprefecture), Batha (Djedaa and Oum-Hadjer Subprefectures), part of Ouaddaï (Abéché Rural and Am-Dam Subprefectures), part of Biltine (Arada Subprefecture), and the northeastern part of Guéra (Mangalmé Subprefecture), resulting in a poor harvest and in some areas a complete crop failure. In Abéché Rural, the drought caused the water table to fall to such low levels that farmers have had to drastically reduce the area they are planting to onions and garlic. Based on current conditions and poor harvest outcomes over the past three years, the entire rural population of about 616,000 in these areas will experience some level of food insecurity. FEWS analysis identified 94,000 people as highly food insecure and 522,000 as moderately food insecure. Within the same area, the EU-funded Early Warning System (SAP) has increased its estimate of moderately food-insecure people from about 80,000 in the preliminary SAP assessment report to about 236,000 in the final report, issued at the end of February 1998. The SAP is recommending that 5,157 MT of cereals be sold at subsidized prices in these areas beginning in May.

b. Recessional farmers

This subgroup includes farmers who practice a combination of rainfed and recessional agriculture. It includes people living in the flood plains of Salamat, the Mayo Kebbi and Tandjilé water shed areas, the Lake Chad polder area, and the Lake Fitri area of Batha. In Salamat and around Lake Fitri, berbéré (recessional sorghum) is the main recessional crop grown. In the polders of Lake Chad, maize and wheat comprise most of the recessional crops. In Mayo Kebbi and Tandjilé, berbéré and recessional rice supplement rainfed production.

Recessional farmers are less vulnerable to drought than dryland farmers because they can integrate recessional and rainfed production. Recessional production depends on the river levels, which depend more on rainfall upstream than on local rainfall. Drought may prevail locally, but if rainfall is good upstream or somewhere within the river catchment basin, then the recessional agricultural production is not affected. In the rice-producing Prefectures of Mayo Kebbi and Tandjilé, farmers can compensate for expected reductions in rice production by shifting to recessional sorghum.

For the current season, recessional production prospects are good, and better than average production is expected. Rice production was also well above average in rice producing zones. Thus, recessional farmers are considered food secure for this coming hungry period.

c. Fishermen

In addition to dryland and recessional farming, seasonal fishing is practiced by people living around the lakes Iro (Moyen Chari Prefecture), Fitri (Batha Prefecture), Léré (Mayo Kebbi Prefecture), Chad (Lac Prefecture), along the Chari and Logone Rivers, and around permanent ponds such as Assida, Amdouma, and Gara (Salamat Prefecture). The fishing population was estimated by DEPA (Direction des Eaux Pêches et Aquaculture) in June of 1994 to be approximately 300,000 people. No reliable records exist, but a study on the informal sector¹² suggested that annual fish production could be around 50,000 MT. The same study suggested a strong correlation between river levels and fish production. This year fish production is expected to be about normal given the good river levels at the beginning of the rainy season. With this year's cereal production at above-average levels in most fishing areas, fishing households are expected to be food secure.

¹² Charmes, J, 1997: Etude sur la Consommation et le Secteur Informel au Tchad (ECOSIT) pp. 38. DSEED (Direction de la Statistique des Etudes Economiques et Demographiques), Ministère des Finances, de l'Economie, du Plan et de l'Amenagement du Territoire, N'Djaména.

2. Pastoralists

Pastoralists represent about 6 percent of the total population in Chad. Based on the type of livestock owned, pastoralists can be divided into camel herders, cattle herders, and small ruminant (goats and sheep) herders. All pastoralists lead a nomadic lifestyle and earn their living through sales of livestock and dairy products. Camel herders also derive a significant share of their income from providing transport services in isolated areas with limited road access. In Salamat during berbéré harvest, camels transport the harvest from the field to storage locations. Pastoralists rely on market purchases and payment in kind for transport services to meet their cereal consumption needs.

During the rainy season, when wet conditions in the south foster favorable conditions for insects and animal diseases, pastoralists move their households and herds north, where drier conditions provide a healthier environment for livestock. At the end of the rainy season, as surface water for livestock becomes scarce in the north, herders start their seasonal migration southward. The transhumance pattern of camel and goat/sheep herders extends from the northern Sahel to the Sahelo-Sudanian areas (Salamat Prefecture, Melfi Subprefecture in Guéra, Bousso Subprefecture in Chari Baguirmi, and Bongor Subprefecture in Mayo Kebbi). The transhumance pattern of cattle herders is much more extensive, stretching from northern Batha, Biltine, and Kanem to the southern frontier of Chad.

Given the vast extent of pasture land in Chad, pastoralists can usually find adequate pasture for their livestock. However, when a major drought occurs, water becomes a limiting factor. Camel and goat herders are less vulnerable to drought than cattle herders because goats and camels feed on perennial plants that can withstand drought better than the annual grasses cattle feed on. In addition, goats need less water and camels can survive without water for longer periods than cattle. As surface water becomes scarce, herders converge on what few water sources remain, and overcrowding leads to overgrazing and often the spread of animal diseases. As available pastures are depleted, animals lose weight; milk production falls and so does the value of livestock, reducing pastoralists' two most important sources of revenue. This in turn limits pastoralists' purchasing power and their access to food.

This year, although there were pockets of drought in areas where most pastoralists spend the rainy season (such as Arada Subprefecture in Biltine, Djedaa Subprefecture in Batha, and Nokou and Moussoro Subprefectures in Kanem), the bulk of pasture area was not affected by drought and pasture and water are plentiful. As cereal prices have stabilized following the relatively good harvest at the national level, terms of trade are improving for pastoralists. Pastoralists will be able to meet their food needs through market purchases and are considered food secure.

B. Urban populations

Based on the 1993 census, 21 percent of the total population is urban. Within this group there are two subgroups¹³.

The first subgroup consists of residents of the four major cities (N'Djaména, Moundou, Sarh, and Abéché) and represents 59 percent of the total urban population. The second subgroup consists of residents of secondary cities (such as Prefecture capitals).

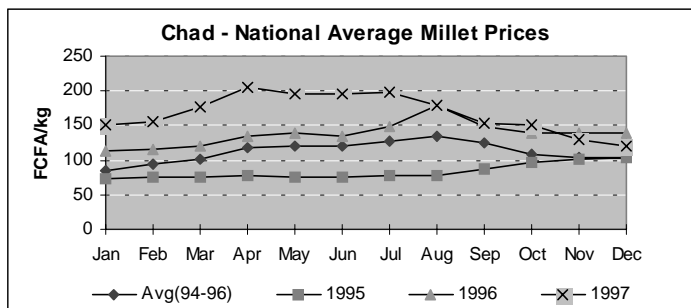


Figure 3
Source: SAP

1. Residents of major cities

These urban residents earn their living through a wide range of activities, most of which fall within the informal sector of the economy, such as commerce, handicrafts, and selling water. A minority are employed as soldiers, civil servants, and private-sector employees.

Urban residents of major cities purchase most of their food, and their access to food is tightly linked to food prices. In 1997, national average millet prices fell dramatically from a high of 200 FCFA/kg between March and July to 125 FCFA/kg in December (figure 3). Lower millet prices should improve access for most urban residents, and they are considered food secure.

2. Residents of secondary cities

Residents of secondary cities have more diversified income than their counterparts in major cities. They are more likely to farm and own livestock, providing them with additional income to supplement their urban-income activities. With the good harvest outcome at the national level and decreasing millet prices, they are considered food secure.

IV. CONCLUSIONS

Better than average agricultural production has enhanced the food security situation for most Chadians. Yet the existence of local drought pockets in parts of Batha, Ouaddaï, and Kanem has resulted into poor harvest or total crop failure. Consequently, approximately 522,000 dryland farmers in parts of Batha, Kanem, Ouaddaï, and Biltine Prefectures are moderately food insecure and another 93,000 are highly food insecure. While the moderately food-insecure populations should be able to meet their food needs by intensifying secondary income activities or drawing on savings, including selling more livestock than usual, the highly food insecure cannot meet their food needs

¹³ Bureau Interministeriel d'Etudes et de Programmation (B.I.E.P.) 1991: Evaluation Rapide de la Sécurité Alimentaire au Tchad, pp 57.

without jeopardizing their future food security. In these same areas, the SAP has identified about 236,000 people as moderately food insecure and has recommended that 5,160 MT of cereals from the national food security stock be sold at subsidized prices to these populations. This recommended action will reduce food insecurity especially for the moderately food insecure, who have the means to purchase cereals. But some households in highly food insecure areas need additional assistance, especially for vulnerable groups, such as children, the elderly, and pregnant and lactating women.

Appendices

1. Recent Harvest Outcomes¹⁴ – Cereal Production as a Percentage of Needs

Zone/ Prefecture		Share of Needs Met through Production (%)				Needs Met Relative to Average (% Difference)		
		Avg	1995/96	1996/97	1997/98	1995/96	1996/97	1997/98
Sahara								
BET		0	0	0	0	0	0	0
Sahel								
Batha		62	95	66	63	53	6	1
Biltine		35	21	5	56	-39	-87	58
Kanem		37	8	12	17	-78	-68	-54
Lac		59	30	23	137	-49	-61	133
Ouaddaï		56	69	92	75	23	64	33
Mixed Sahel-Sudanian								
Chari Baguirmi		55	50	42	47	-11	-24	-16
Guéra		76	78	44	60	3	-42	-21
Sudanian								
Logone Occidental		44	46	49	54	3	10	22
Logone Oriental		82	66	77	75	-19	-6	-8
Mayo Kebbi		87	109	115	98	25	32	13
Moyen Chari		74	75	65	75	2	-12	2
Salamat		188	159	149	154	-15	-21	-18
Tandjilé		88	105	81	80	19	-8	-9

Source: Ministry of Agriculture; National Census Bureau

¹⁴ The 1990/91-1994/95 average is used rather than the 1992/93-1996/97 average to enable comparison of each of the last three production years, 1995/96, 1996/97, 1997/98, to the same 5-yr average.